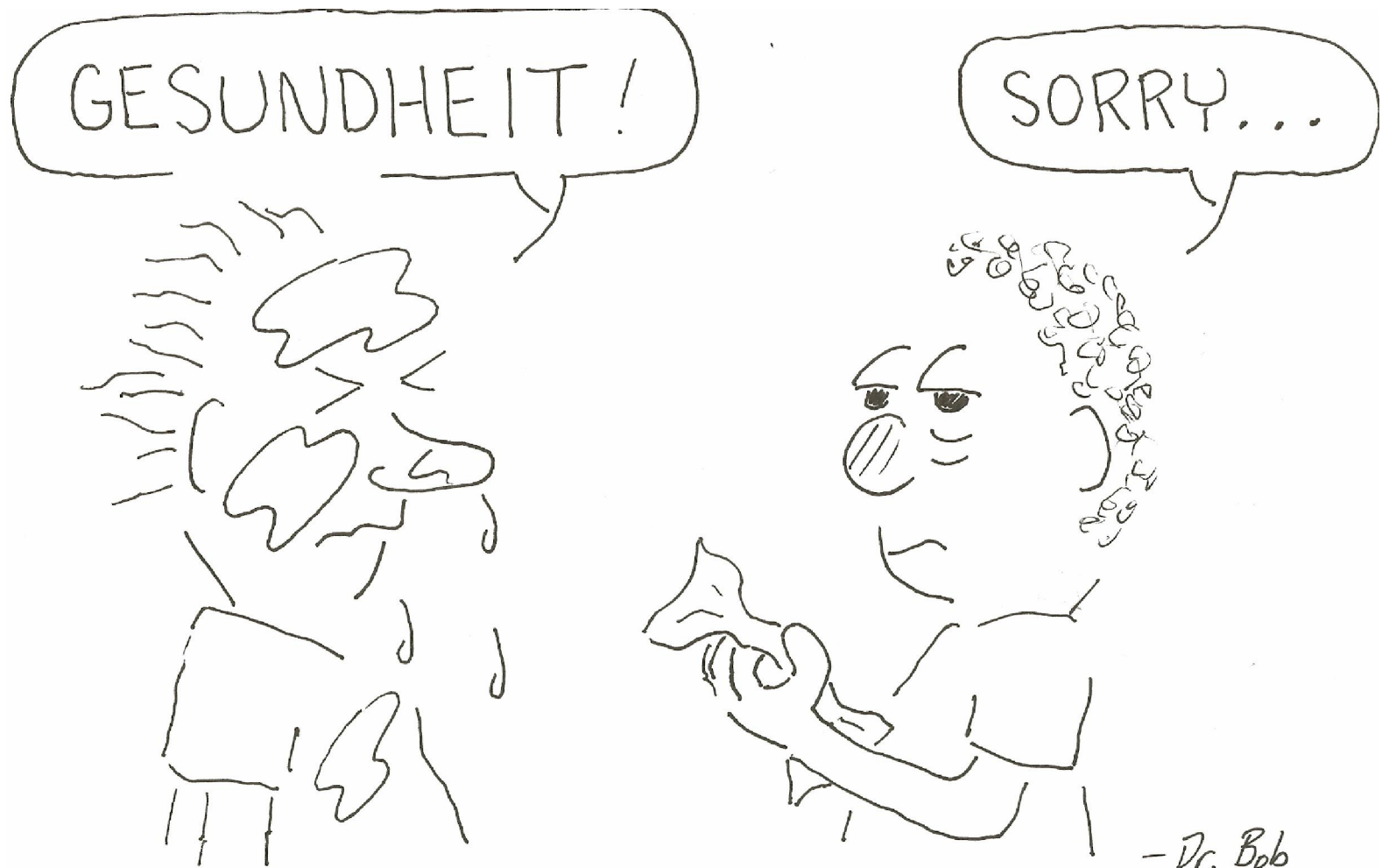


Up Close and Personal: Local Perspectives on Pandemic Flu Planning

Bob England, MD, MPH March 30, 2006



All Public Health is Local

- LHD does normal public health interventions
- Local primary focus for all emergencies
- Local authority doesn't go away with State Declaration of Emergency
- Usually more relationships with LHDs

But... public doesn't know which is which

Review of issues:

- PH infrastructure (Epi, hosp plans, vols)
- Not enough vaccine (1% of pop / week)
- Not enough antivirals
- Very limited surge capacity
- Infrastructure (workers staying home)
- The News (“latest breaking gossip”)
- Social order

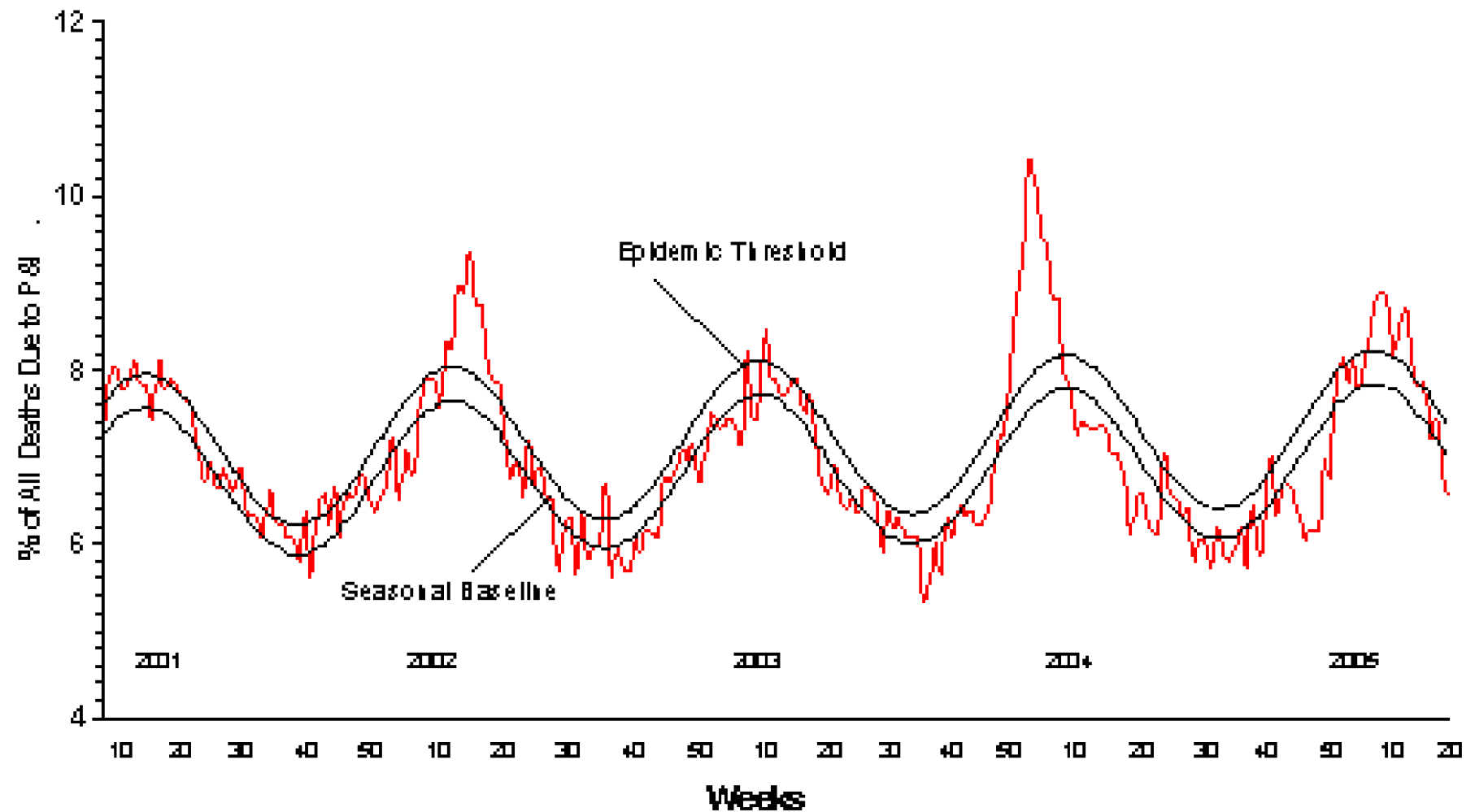
Pandemic Flu Plans

- Goals
 - Prevent morbidity & mortality
 - Prevent social disruption
- Tools
 - Vaccine
 - Antivirals
 - Other interventions

Local Role in ADHS Plan:

- Surveillance & Epi
- Healthcare Response Coordination
- Vaccine & Antiviral Delivery and Admin
- “Community Disease Control” (I & Q)
- Addressing Travel-Related Risk
- Public Info
- Workforce Support (psychosocial needs)
- Info Management

Pneumonia and Influenza Mortality for 122 U.S. Cities Week Ending 5/21/2005



Epidemic Influenza Continues to Have a Huge Annual Impact

- Cases: 25 – 50+ million cases
- Days of illness: 100 – 200 million days
- Work loss: ~75 million days
- Hospitalizations: 100,000 – 300,000
- Deaths: 34,000* – 51,000**
- Costs: Billions of dollars

*Ave all cause, 1976-77 thru 1998-99.

**Ave all cause 1990-91 thru 1998-99.

MMWR 2003; 52 (RR-8); Thompson et al. JAMA 2003; 289: 179;

Adams PF et al. Vital Health Stat 1999; 10(200).

10 Leading Causes of Deaths by Age Group - 2000

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 5,743	Unintentional Injury 1,826	Unintentional Injury 1,391	Unintentional Injury 1,588	Unintentional Injury 14,113	Unintentional Injury 11,769	Malignant Neoplasms 16,520	Malignant Neoplasms 48,034	Malignant Neoplasms 89,005	Heart Disease 593,707	Heart Disease 710,760
2	Short Gestation 4,397	Congenital Anomalies 495	Malignant Neoplasms 489	Malignant Neoplasms 525	Homicide 4,939	Suicide 4,792	Unintentional Injury 15,413	Heart Disease 35,480	Heart Disease 63,399	Malignant Neoplasms 392,366	Malignant Neoplasms 553,091
3	SIDS 2,523	Malignant Neoplasms 420	Congenital Anomalies 198	Suicide 300	Suicide 3,994	Homicide 4,164	Heart Disease 13,181	Unintentional Injury 12,278	Chronic Lower Respiratory Disease 10,739	Cerebro-vascular 148,045	Cerebro-vascular 167,661
4	Maternal Pregnancy Comp. 1,404	Homicide 356	Homicide 140	Homicide 231	Malignant Neoplasms 1,713	Malignant Neoplasms 3,916	Suicide 6,562	Liver Disease 6,654	Cerebro-vascular 9,956	Chronic Lower Respiratory Disease 106,317	Chronic Lower Respiratory Disease 122,009
5	Placenta Cord Membranes 1,062	Heart Disease 181	Heart Disease 106	Congenital Anomalies 201	Heart Disease 1,031	Heart Disease 2,958	HIV 5,919	Cerebro-vascular 6,011	Diabetes Mellitus 9,186	Influenza & Pneumonia 58,557	Unintentional Injury 97,900
6	Respiratory Distress 999	Influenza & Pneumonia 103	Benign Neoplasms 62	Heart Disease 165	Congenital Anomalies 441	HIV 2,437	Liver Disease 3,371	Suicide 5,437	Unintentional Injury 7,505	Diabetes Mellitus 52,414	Diabetes Mellitus 69,301
7	Unintentional Injury 881	Septicemia 99	Chronic Lower Respiratory Disease 48	Chronic Lower Respiratory Disease 91	Cerebro-vascular 199	Diabetes Mellitus 623	Homicide 3,219	Diabetes Mellitus 4,954	Liver Disease 5,774	Alzheimer's Disease 48,993	Influenza & Pneumonia 65,313
8	Bacterial Sepsis 768	Perinatal Period 79	Influenza & Pneumonia 47	Cerebro-vascular 51	Chronic Lower Respiratory Disease 190	Cerebro-vascular 602	Cerebro-vascular 2,599	HIV 4,142	Nephritis 3,100	Nephritis 31,225	Alzheimer's Disease 49,558
9	Circulatory System Disease 663	Benign Neoplasms 53	Septicemia 38	Influenza & Pneumonia 40	Influenza & Pneumonia 189	Congenital Anomalies 477	Diabetes Mellitus 1,926	Chronic Lower Respiratory Disease 3,251	Suicide 2,945	Unintentional Injury 31,051	Nephritis 37,251
10	Intrauterine Hypoxia 630	Chronic Lower Respiratory Disease 51	Two Tied 25	Benign Neoplasms 37	HIV 179	Liver Disease 415	Influenza & Pneumonia 1,068	Viral Hepatitis 1,894	Septicemia 2,899	Septicemia 24,786	Septicemia 31,224

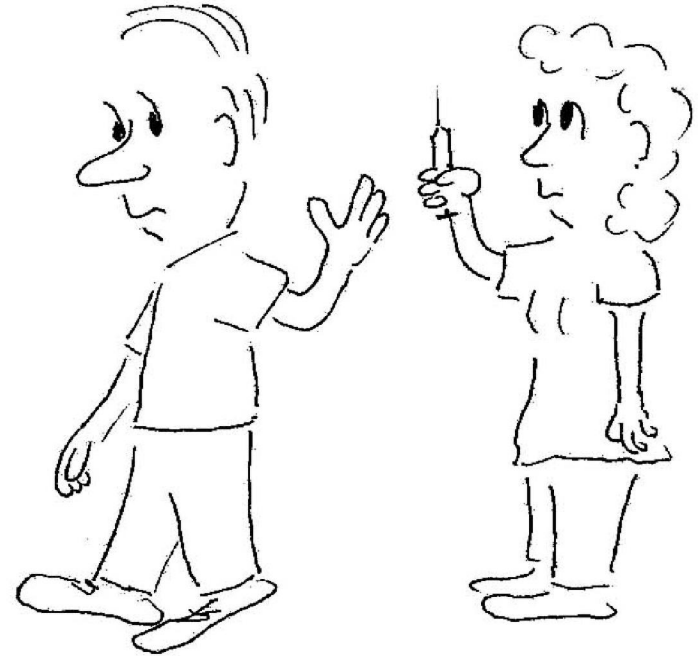
Source: National Center for Health Statistics, (NCHS) Vital Statistics Systems
Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

AAAAAAACHH!
A MOSQUITO!
RUN FOR YOUR LIVES!
WEST NILE VIRUS!!
WEST NILE VIRUS!!



U.S. DEATHS IN 2002 = 284
(WORST YEAR SO FAR)

A FLU SHOT?
NO THANKS.
WHY BOTHER?



U.S. DEATHS = 36,000
(IN AVERAGE YEAR)

Target Groups

Influenza vaccination currently recommended for ~185 million:
83 (m) HR & 102 (m) other

Group	Est. Population (millions)	% Coverage (2002, NHIS)*
> 65	36	64%
High Risk		
50 – 64	13	44%
19 – 49	18	23%
6 mos – 18 yrs	8	?
pregnant	2	12%
children 6 – 23 mos	5.5	?
HCW	7	38%
Household contacts	75.5	18%
Healthy 50 – 64	19.5	29%**

* CDC/NIP. Influenza Vaccine Bulletin #1, March 26, 2004.

**Coverage rate for 2000-01: MMWR 2003; 52 (RR-8).

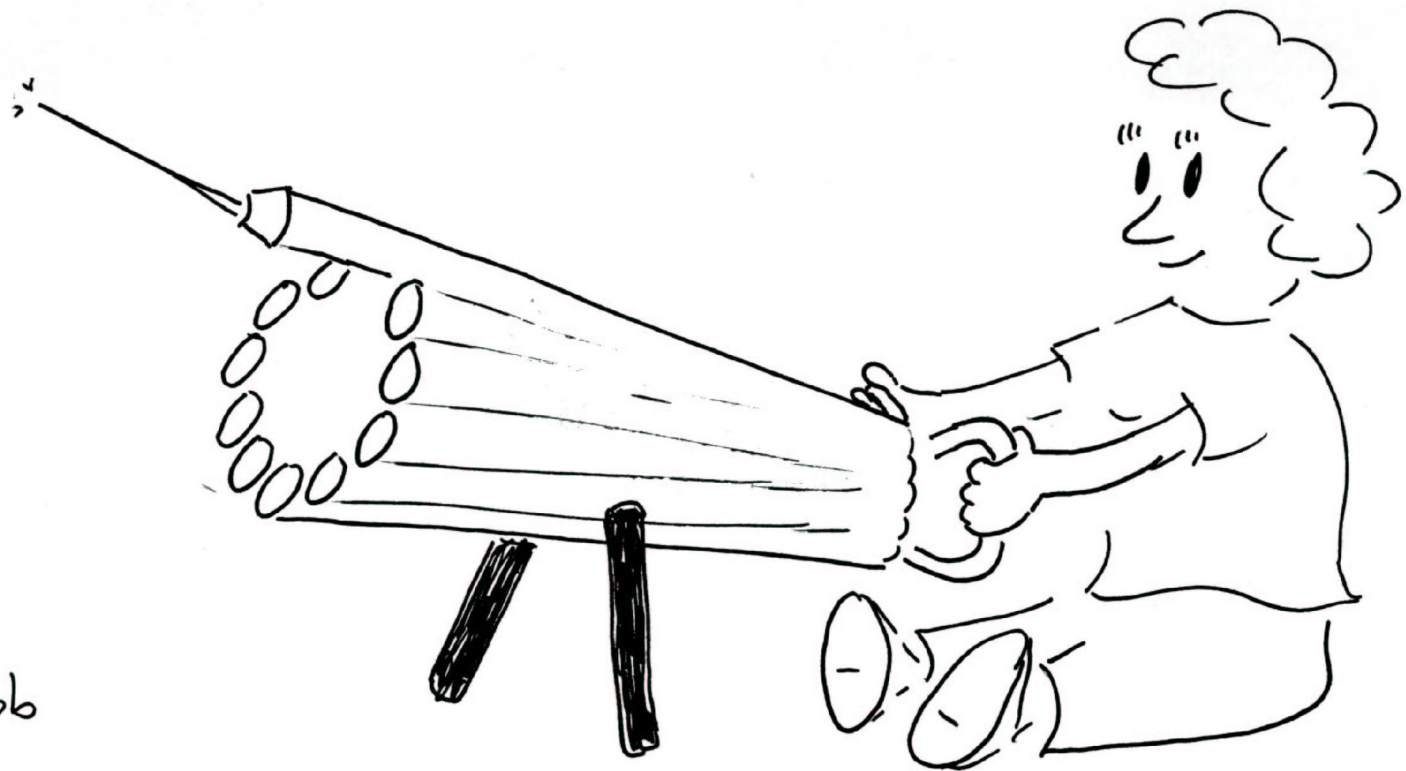
VACCINATION TO GO



Dr. Bob England, director of the Milford Health Department, gives a flu shot to Dr. John Adams of Milford during the second day of the annual flu and pneumonia clinic at the Milford Senior Center. The program featured drive-through service for the disabled.

Aaron Flaum/Register

THE GATTLING SYRINGE



- Dr. Bob

Vaccine

- PODs irrelevant?
- Plan for how to deliver/administer limited supply
 - Education / communication
 - CONSISTENCY! (across jurisdictions)
 - Security
 - Mobile delivery system (at first)

Antivirals

- PODs irrelevant
- Largely private system
 - Tracking / guidance, less control
- **CONSISTENCY!** (harder to achieve)

Surveillance

- Detail important up front
- Soon overwhelmed
- Shift to checking on needs

Isolation & Quarantine

- Most useful early
- But politically difficult early
- Soon will devolve into voluntary
- Small army to track and check on people

“Social distancing”

Healthcare Surge Capacity

- Most difficult / detailed piece
- Every other aspect intertwined
- Local coordination far better
- Locals WAY behind

Communication

- Honest
- CONSISTENT
- Honest
- Available
- Honest
- Give people something to do

IT'S TRUE, WE'RE ALL
GOING TO DIE...
BUT LET ME TELL YOU
ABOUT OUR TERRIFIC
MASS FATALITY PLAN...



-Dr. Bob

